Abstract of the Disclosure

A method and apparatus to monitor the neurologic state of a patient undergoing general anesthesia is provided. Previous automated systems to monitor the neurologic state of a patient undergoing general anesthesia involve a significant time delay between the patient's true hypnotic state and the computed indices. The present invention reduces this time delay by using a different analysis technique applied to spontaneous EEG. A wavelet decomposition and statistical analysis of the observed EEG is conducted and compared to reference data to provide a numerical indicator. In addition, this indicator is more consistent with the patient's loss of consciousness indicated by the loss of count event than previous systems.